

## **Product datasheet for MR204962L3**

#### OriGene Technologies, Inc.

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### Mdh1 (NM\_008618) Mouse Tagged Lenti ORF Clone

#### **Product data:**

**Product Type:** Expression Plasmids

Product Name: Mdh1 (NM 008618) Mouse Tagged Lenti ORF Clone

Tag: Myc-DDK

Symbol: Mdh1

Synonyms: B230377B03Rik; D17921; MDH-; MDH-s; MDHA; Mo; Mor; Mor-2; Mor2

Mammalian Cell Puromycin

Selection:

**Vector:** pLenti-C-Myc-DDK-P2A-Puro (PS100092)

E. coli Selection: Chloramphenicol (34 ug/mL)

ORF Nucleotide The ORF insert of this clone is exactly the same as(MR204962).

Sequence:

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





st The last codon before the Stop codon of the ORF.

**ACCN:** NM\_008618

ORF Size: 1005 bp



#### Mdh1 (NM\_008618) Mouse Tagged Lenti ORF Clone - MR204962L3

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of

reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing

variants is recommended prior to use. More info

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression

varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube

containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:** 1. Centrifuge at 5,000xg for 5min.

2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.

3. Close the tube and incubate for 10 minutes at room temperature.

4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid

at the bottom.

5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of

shipping when stored at -20°C.

**RefSeq:** <u>NM 008618.2</u>

 RefSeq Size:
 1958 bp

 RefSeq ORF:
 1005 bp

 Locus ID:
 17449

 UniProt ID:
 P14152

Cytogenetics: 11 13.89 cM

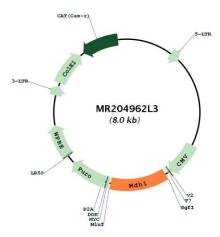
**Gene Summary:** This gene encodes an enzyme that catalyzes the NAD/NADH-dependent, reversible oxidation

of malate to oxaloacetate in many metabolic pathways, including the citric acid cycle. Two main isozymes are known to exist in eukaryotic cells: one is found in the mitochondrial matrix and the other in the cytoplasm. This gene encodes the cytosolic isozyme, which plays a key role in the malate-aspartate shuttle that allows malate to pass through the mitochondrial membrane to be transformed into oxaloacetate for further cellular processes. A recent study showed that a C-terminally extended isoform is produced by use of an alternative in-frame translation termination codon via a stop codon readthrough mechanism, and that this isoform is localized in the peroxisomes. A pseudogene has been identified on chromosomes

12. [provided by RefSeq, Feb 2016]



# **Product images:**



Circular map for MR204962L3